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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/599,135	06/22/2000	Besma Kraiem	450117-02632	7356

20999 7590 10/23/2003

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EXAMINER

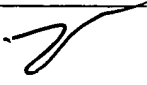
MILLER, BRANDON J

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/599,135	Applicant(s) KRAIEM ET AL. 	
	Examiner Brandon J Miller	Art Unit 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-82 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-82 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other:  |

**DETAILED ACTION**

***Response to Amendment***

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 51, 61, 71, and 81 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 51 recites the limitation "said time slot" in pg. 8, 4<sup>th</sup> paragraph, line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 61 recites the limitation "said time slot" in pg. 9, 8<sup>th</sup> paragraph, line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 71 recites the limitation "said time slot" in pg. 11, 1<sup>st</sup> paragraph, line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 81 recites the limitation "said time slot" in pg. 12, 3<sup>rd</sup> paragraph, line 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

Art Unit: 2683

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 12-16, 21-22, 24, 27-30, 32, 36-37, 39, 43-44, 46, 49, 52-54, 56, 59, 62-64, 66, 69, 73-74, 76, and 79 are rejected under 35 U.S.C. 102(e) as being anticipated by Barnhart.

Regarding claim 12 Barnhart teaches a network device for a wireless network, including receiver means for receiving information; and means configured and adapted for adjusting a transmission power level of a network device on the basis of a power control recommendation received from a peer network device via receiving means (see col. 2, lines 38-46, col. 5, lines 22-44 & 59-62).

Regarding claim 13 Barnhart teaches a network device configured and adapted for generating a power control recommendation for a peer network device on the basis of a transmission signal received from a peer network device (see abstract and col. 5, lines 32-44).

Regarding claim 14 Barnhart teaches transmitter means configured and adapted for transmitting a power control recommendation for a peer network device on a dedicated control channel (see col. 5, lines 28-39).

Regarding claim 15 Barnhart teaches a power control recommendation with information pertaining to a transmit power level and a desired received power level of a network device (see abstract and col. 5, lines 34-40).

Regarding claim 16 Barnhart teaches a receiver configured and adapted for receiving power control recommendation on a dedicated control channel (see col. 1, lines 40-48 and col. 5, lines 35-37).

Regarding claim 21 Barnhart teaches a network device for a wireless network including receiver means for transmitting information; and means configured and adapted for generating a

Art Unit: 2683

power control recommendation for a peer network device on the basis of a transmission signal received from a peer network device via receiver means (see col. 2, lines 38-46, col. 5, lines 22-44 & 59-62).

Regarding claim 22 Barnhart teaches a device as recited in claim 14 and is rejected given the same reasoning as above.

Regarding claim 24 Barnhart teaches a device as recited in claim 15 and is rejected given the same reasoning as above.

Regarding claim 27 Barnhart teaches a communication device configured and adapted for peer-to-peer wireless communication including receiver means for receiving information; and means configured and adapted for adjusting a radio transmission power level of a communication device based on the contents of a first message received from another communication device via receiver means (see col. 2, lines 38-46, col. 5, lines 22-44 & 59-62).

Regarding claim 28 Barnhart teaches a communication device configured and adapted for generating a message recommending a power level adjustment for another communication device on the basis of signal strength of a radio signal received from another communication device (col. 5, lines 30-44 & 59-26 and col. 9, lines 5-8). Barnhart also teaches a second power recommendation message being transmitted (see col. 6, lines 45-51).

Regarding claim 29 Barnhart teaches a radio transmitter configured and adapted for radioing a message on a dedicated control channel (see col. 5, lines 28-34). Barnhart also teaches a second power recommendation message being transmitted (see col. 6, lines 45-51).

Regarding claim 30 Barnhart teaches a power control recommendation with information pertaining to a transmit power level and a desired received power level of a network device (see

Art Unit: 2683

abstract and col. 5, lines 34-40). Barnhart also teaches a second power recommendation message being transmitted (see col. 6, lines 45-51).

Regarding claim 32 Barnhart teaches a device as recited in claim 16 and is rejected given the same reasoning as above.

Regarding claim 36 Barnhart teaches a communication device configured and adapted for peer-to-peer wireless communication including receiver means for receiving information; and means configured and adapted for generating a message recommending a power level adjustment for another communication device on the basis of a signal strength of a radio signal received from another communication device via receiver means (see abstract, col. 4, lines 18-24 & 38-43, col. 5, lines 22-44 & 59-62).

Regarding claim 37 Barnhart teaches a radio transmitter configured and adapted for radioing a message on a dedicated control channel (see col. 5, lines 28-34).

Regarding claim 39 Barnhart teaches a device as recited in claim 24 and is rejected given the same reasoning as above.

Regarding claim 43 Barnhart teaches a communication system including two or more peer communication devices, wherein the communication system is configured and adapted for effecting peer-to-peer wireless communication including communication of a power control recommendation from one of the communication devices to one or more of the other communication devices (see col. 2, lines 38-46, col. 5, lines 22-44 & 59-62).

Regarding claim 44 Barnhart teaches a device as recited in claim 16 and is rejected given the same reasoning as above.

Art Unit: 2683

Regarding claim 46 Barnhart teaches a device as recited in claim 15 and is rejected given the same reasoning as above.

Regarding claim 49 Barnhart teaches a communication wherein the peer communication devices are mobile terminals (see col. 2, lines 44-46 and col. 3, lines 34-37).

Regarding claim 52 Barnhart teaches a communication system that is configured and adapted for effecting adjustment of a transmission power level of at least one of the one or more other communication devices on the basis of a power control recommendation communicated from another communication device (see col. 5, lines 28-44).

Regarding claim 53 Barnhart teaches two or more peer communication devices, wherein a communication system is configured and adapted for effecting adjustment of a transmission power level of one of a communication devices on the basis of a power control recommendation communicated via peer-to-peer wireless communication from one communication device to another communication device (see col. 5, lines 22-44).

Regarding claim 54 Barnhart teaches a device as recited in claim 16 and is rejected given the same reasoning as above.

Regarding claim 56 Barnhart teaches a device as recited in claim 15 and is rejected given the same reasoning as above.

Regarding claim 59 Barnhart teaches a device as recited in claim 49 and is rejected given the same reasoning as above.

Regarding claim 62 Barnhart teaches a method of power control including wirelessly communicating a power control recommendation from a first communication device to a peer

Art Unit: 2683

communication device of a first communication device (see abstract, col. 4, lines 18-24 & 38-43, col. 5, lines 22-44 & 59-62).

Regarding claim 63 Barnhart teaches adjusting the transmission power level of a peer communication device on the basis of a power control recommendation (see abstract and col. 5, lines 30-44).

Regarding claim 64 Barnhart teaches a device as recited in claim 16 and is rejected given the same reasoning as above.

Regarding claim 66 Barnhart teaches a device as recited in claim 15 and is rejected given the same reasoning as above.

Regarding claim 69 Barnhart teaches a device as recited in claim 49 and is rejected given the same reasoning as above.

Regarding claim 73 Barnhart teaches adjusting a transmission power level of a first communication device on the basis of a power control recommendation wirelessly communicated from a peer communication device to a first communication device (see col. 5, lines 22-44).

Regarding claim 74 Barnhart teaches a device as recited in claim 16 and is rejected given the same reasoning as above.

Regarding claim 76 Barnhart teaches a device as recited in claim 15 and is rejected given the same reasoning as above.

Regarding claim 79 Barnhart teaches a device as recited in claim 49 and is rejected given the same reasoning as above.



***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17, 18, 23, 33, 34, 38, 40, 45, 51, 55, 61, 65, 71, 75, and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnhart.

Regarding claim 17 Barnhart teaches a device as recited in claim 12 except for a power control recommendation with identifiers indicative of a communication link for which a power control recommendation is valid. Barnhart does teach a power control recommendation that is coded as appropriate to the specific radio application being used (see col. 9, lines 5-20). It would have been obvious to one of ordinary skill at the time the invention was made to make the device adapt to include a power control recommendation with identifiers indicative of a communication link for which a power control recommendation is valid because this would allow for controlling signal transmission power in communication systems using multiple communication links.

Regarding claim 18 Barnhart teaches a device as recited in claim 12 except for identifying a communication link for which a power control recommendation is valid on the basis of a time slot in which a power control recommendation was transmitted. Barnhart does teach a power control recommendation that is coded as appropriate to the specific radio application being used (see col. 9, lines 5-20). Barnhart does teach a power control recommendation that is transmitted at selected time periods (col. 5, lines 37-41 and col. 7, lines 50-54). It would have been obvious to one of ordinary skill in the art at the time the invention is

Art Unit: 2683

made to make the device adapt to include identifying a communication link for which a power control recommendation is valid on the basis of a time slot in which a power control recommendation was transmitted because this would allow for controlling signal transmission power in communication systems using multiple communication links.

Regarding claim 23 Barnhart teaches a device as recited in claim 17 and is rejected given the same reasoning as above.

Regarding claim 33 Barnhart teaches a device as recited in claim 17 and is rejected given the same reasoning as above.

Regarding claim 34 Barnhart teaches a device as recited in claim 18 and is rejected given the same reasoning as above.

Regarding claim 38 Barnhart teaches a device as recited in claim 17 and is rejected given the same reasoning as above.

Regarding claim 40 Barnhart teaches a device as recited in claim 18 and is rejected given the same reasoning as above.

Regarding claim 45 Barnhart teaches a device as recited in claim 17 and is rejected given the same reasoning as above.

Regarding claim 51 Barnhart teaches a device as recited in claim 18 and is rejected given the same reasoning as above.

Regarding claim 55 Barnhart teaches a device as recited in claim 17 and is rejected given the same reasoning as above.

Regarding claim 61 Barnhart teaches a device as recited in claim 18 and is rejected given the same reasoning as above.

Regarding claim 65 Barnhart teaches a device as recited in claim 17 and is rejected given the same reasoning as above.

Regarding claim 71 Barnhart teaches a device as recited in claim 18 and is rejected given the same reasoning as above.

Regarding claim 75 Barnhart teaches a device as recited in claim 17 and is rejected given the same reasoning as above.

Regarding claim 81 Barnhart teaches a device as recited in claim 18 and is rejected given the same reasoning as above.

Claims 19, 25, 35, 41, 50, 60, 70, and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnhart in view of Labedz.

Regarding claim 19 Barnhart teaches a device as recited in claim 12 except for effecting a reception of a power recommendation in a time divisional access mode. Barnhart does teach a receiver that is configured and adapted for effecting a reception of a power control recommendation (see col. 1, lines 40-48 and col. 5, lines 35-37). Labedz teaches adjusting channel power in a wireless communication system in a time divisional access mode (see abstract and col. 5, lines 9-16). It would have been obvious to one of ordinary skill in the art at the time the invention is made to make the device adapt to include effecting a reception of a power recommendation in a time divisional access mode because this would allow for controlling signal transmission power in a variety of different wireless/radio applications.

Regarding claim 25 Barnhart and Labedz teach a device as recited in claim 19 and is rejected given the same reasoning as above.

Art Unit: 2683

Regarding claim 35 Barnhart and Labedz teach a device as recited in claim 19 and is rejected given the same reasoning as above.

Regarding claim 41 Barnhart and Labedz teach a device as recited in claim 19 and is rejected given the same reasoning as above.

Regarding claim 50 Barnhart and Labedz teach a device as recited in claim 19 and is rejected given the same reasoning as above.

Regarding claim 60 Barnhart and Labedz teach a device as recited in claim 19 and is rejected given the same reasoning as above.

Regarding claim 70 Barnhart and Labedz teach a device as recited in claim 19 and is rejected given the same reasoning as above.

Regarding claim 80 Barnhart and Labedz teach a device as recited in claim 19 and is rejected given the same reasoning as above.

Claims 20, 26, 31, 42, 72, and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnhart in view of Schroderus.

Regarding claim 20 Barnhart teaches a device as recited in claim 12 except for a transmitter configured and adapted to transmit a power control recommendation at an accordingly lower transmit power level if a network device has information about link quality to a receiving device and to otherwise transmit power control recommendation at a maximum transmit power level. Barnhart does teach a transmitter configured and adapted to transmit a power control recommendation at an accordingly adjusted transmit power level if a network device has information about link quality to a receiving device (see col. 4, lines 20-26 and col. 5, lines 22-44). Schroderus teaches a radio unit transmitting at a lower transmit power level (see

Art Unit: 2683

col. 6, lines 8-14. Schroderus also teaches a radio unit transmitting at a maximum transmit power level (see col. 29-30 & 46-47). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a transmitter configured and adapted to transmit a power control recommendation at an accordingly lower transmit power level if a network device has information about link quality to a receiving device and to otherwise transmit power control recommendation at a maximum transmit power level because this would allow for improved channel efficiency in communications between network devices.

Regarding claim 26 Barnhart and Schroderus teach a device as recited in claim 20 and is rejected given the same reasoning as above.

Regarding claim 31 Barnhart teaches a device as recited in claim 12 except for a transmitter configured and adapted to radio a second message a power level chosen in accordance with a link quality to a receiving device and to otherwise transmit second message at a maximum transmit power level. Barnhart does teach a transmitter configured and adapted to radio a message a power level chosen in accordance with a link quality to a receiving device (see col. 4, lines 20-26 and col. 5, lines 22-44). Barnhart does teach a second message being transmitted (see col. 6, lines 45-51). Schroderus also teaches a radio unit transmitting at a maximum transmit power level (see col. 29-30 & 46-47). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to a transmitter configured and adapted to radio a second message a power level chosen in accordance with a link quality to a receiving device and to otherwise transmit second message at

Art Unit: 2683

a maximum transmit power level because this would allow for improved channel efficiency in communications between network devices.

Regarding claim 42 Barnhart and Schroderus teach a device as recited in claim 31 and is rejected given the same reasoning as above.

Regarding claim 72 Barnhart teaches a device as recited in claim 62 except for wireless communication effected by a first communication device at a power level chosen in accordance with a link quality to a peer communication device if the first communication device has information about the link quality at a maximum power level. Barnhart does teach a wireless communication effected by a first communication device at a power level chosen in accordance with a link quality to a peer communication device if the first communication device has information about the link quality (see col. 4, lines 20-26, col. 5, lines 22-44, and col. 6, lines 47-50). Schroderus also teaches a radio unit transmitting at a maximum transmit power level (see col. 29-30 & 46-47). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include wireless communication effected by a first communication device at a power level chosen in accordance with a link quality to a peer communication device if the first communication device has information about the link quality at a maximum power level because this would allow for improved channel efficiency in communications between network devices.

Regarding claim 82 Barnhart and Schroderus teach a device as recited in claim 72 and is rejected given the same reasoning as above.

Claims 47-48, 57-58, 67-68, and 77-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnhart in view of Fifield.

Regarding claim 47 Barnhart teaches a device as recited in claim 43 except for a peer-to-peer wireless communication including a granting of resources by a central controller. Fifield teaches a peer-to-peer wireless communication including a granting of resources by a central controller (see col. 3, lines 49-56). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a peer-to-peer wireless communication including a granting of resources by a central controller because this would allow for efficient allocation of resources in a communication system with multiple network devices.

Regarding claim 48 Fifield teaches granting of resources that is the sole involvement of a central controller in a peer-to-peer wireless communication (see col. 2, lines 17-23 and col. 3, lines 49-56).

Regarding claim 57 Barnhart and Fifield teach a device as recited in claim 47 and is rejected given the same reasoning as above.

Regarding claim 58 Barnhart and Fifield teach a device as recited in claim 48 and is rejected given the same reasoning as above.

Regarding claim 67 Barnhart and Fifield teach a device as recited in claim 47 and is rejected given the same reasoning as above.

Regarding claim 68 Barnhart and Fifield teach a device as recited in claim 48 and is rejected given the same reasoning as above.

Regarding claim 77 Barnhart and Fifield teach a device as recited in claim 47 and is rejected given the same reasoning as above.

Art Unit: 2683

Regarding claim 78 Barnhart and Fifield teach a device as recited in claim 48 and is rejected given the same reasoning as above.

*Response to Arguments*

Applicant's arguments with respect to claims 12-82 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Saints WO 98/23044 PCT discloses a method and apparatus for adjusting thresholds and measurements of received signals by anticipating power control commands yet to be executed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J Miller whose telephone number is 703-305-4222. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

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October 10, 2003



Application/Control Number: 09/599,135

Page 16

Art Unit: 2683



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SUPERVISORY PATENT EXAMINER  
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